Name:

at1110paper_practice_test (v18)

1. Expand the following expression into standard form.

$$(3x - 2)(5x - 9)$$

$15x^2 - 27x - 10x + 18$

$15x^2 - 37x + 18$

2. Solve the equation.

$$(5x + 2)(7x - 9) \;=\; 0$$

$x = \dfrac{-2}{5}$ $\qquad$ $x = \dfrac{9}{7}$

3. Expand the following expression into standard form.

$$(5x - 3)(5x + 3)$$

$25x^2 + 15x - 15x - 9$

$25x^2 - 9$

4. Expand the following expression into standard form.

$$(5x - 6)^2$$

$25x^2 - 30x - 30x + 36$

$25x^2 - 60x + 36$

5. Factor the expression.

$$x^2 + 7x - 18$$

$$(x - 2)(x + 9)$$

6. Factor the expression.

$$36x^2 - 49$$

$$(6x - 7)(6x + 7)$$

7. Solve the equation with factoring by grouping.

$$15x^2 + 20x + 6x + 8 \;=\; 0$$

$$(5x + 2)(3x + 4) = 0$$

$$x = \frac{-2}{5} \qquad x = \frac{-4}{3}$$

8. Solve the equation.

$$7x^2 - 21x + 25 \;=\; 4x^2 - 2x - 3$$

$$3x^2 - 19x + 28 = 0$$

$$(3x - 7)(x - 4) = 0$$

$$x = \frac{7}{3} \qquad x = 4$$